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EXAMINER

ELAHEE, MD S

ART UNIT

PAPER NUMBER

2645

DATE MAILED: 08/03/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/932,666

Applicant(s)

AUL W. DENT

Examiner

Md S Elahee

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments mailed on 05/06/04 have been fully considered but are moot in view of the new ground(s) of rejection which is deemed appropriate to address all of the needs at this time.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claim 1, the phrase 'creating an acoustic waveform', on page 10, line 7 of the claim, is not disclosed in the original specification.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 6, 7, 9, 10, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Clifford et al. (U.S. Patent No. 4,746,912).

Regarding claims 6, 9 and 12, Clifford teaches receiving radio signal (i.e., first digital audio samples) via the radio link (fig.3; col.3, lines 67, 68, col.4, lines 1-6, 33-40).

receiving the acoustic alarm signal (i.e., acoustic alarm signal) via a microphone (fig.3; col.4, lines 33-40).

converting the received acoustic alarm signal to audio signal (i.e., second digital audio samples) (fig.3; col.4, lines 28-40). (Note: the acoustic alarm signal is passed through a band pass filter, therefore, it is clear that acoustic alarm signal is inherently converted to audio signal (see fig.3))

determining the time difference between the arrival of the radio signal and the acoustic alarm signal (fig.3; col.4, lines 1-6, 33-40).

determining the distance from the receiver (i.e., first RF equipped device) based on the known speed of propagation of radio waves, the known speed of sound, and the time difference between the arrival of radio signal and the acoustic alarm signal (fig.2, 3; col.3, lines 3-16, 33-53, 67, 68, col.4, lines 1-40). (Note: speed of propagation of radio waves and speed of sound are well known in art and the speeds are inherently used over here)

Regarding claims 7, 10 and 13, Clifford teaches comparing the first digital audio samples against the second digital audio samples to make confirmation that the FSK sequence represents the proper transmitted output (i.e., determine if they match, and if the first digital audio samples match the second digital audio samples), then performing the determining the time difference between the arrival of the first digital audio samples and the acoustic signal (fig.4; col.3, lines 40-66).

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 4, 7, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford et al. (U.S. Patent No. 4,746,912) and in view of Dean (U.S. Patent No. 6,201,802).

Regarding claim 1 is rejected for the same reasons as discussed above with respect to claim 6. Furthermore, Clifford teaches establishing a radio link between the alarm signaling unit (i.e., first RF equipped device) and the receiver (i.e., second RF equipped device) (abstract; fig.2, 3; col.3, lines 67, 68, col.4, lines 1-6).

Clifford further teaches in the alarm signaling unit:

creating an acoustic waveform in the form of radio signal (i.e., first digital audio samples) (fig.3; col.3, lines 67, 68, col.4, lines 1-6).

transmitting the radio signal via said radio link (fig.3; col.3, lines 67, 68, col.4, lines 1-6).

decoding (i.e., converting) the first FSK bit sequence (i.e., digital audio samples) to an audible FSK bit sequence (i.e., analog audio waveform) (fig.1; col.3, lines 30-33, col.4, lines 25-32).

emitting the audio signal (i.e., analog audio waveform) as an acoustic signal via a loudspeaker (fig.2, 3; col.2, lines 26-62, col.3, lines 67, 68, col.4, lines 1-6).

However, it is not clear whether Clifford teaches converting the first digital audio samples to an analog audio waveform. Dean teaches converting the first digital audio samples to an analog audio waveform (fig.1; col.3, lines 45-55). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clifford to allow converting the first digital audio samples to an analog audio waveform as taught by Dean. The motivation for the modification is to have doing so in order to transmit the signal over radio link.

Regarding claim 4, Clifford teaches terminating inherently an exchange of further radio messages between the first and second RF equipped devices if the distance determined is greater than a threshold value.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford et al. (U.S. Patent No. 4,746,912) and in view of Dean (U.S. Patent No. 6,201,802) and further in view of Saylor (U.S. Patent No. 4,313,183).

Regarding claim 2, Clifford teaches performing the determining the time difference between the arrival of the first digital audio samples and the acoustic signal (col.3, lines 67, 68, col.4, lines 1-40).

It not clear whether Clifford in view of Dean teaches comparing the first digital audio samples against the second digital audio samples to determine if they match. Saylor teaches comparing the first digital audio samples against the second digital audio samples to make confirmation that the FSK sequence represents the proper transmitted output (i.e., determine if they match) (fig.4; col.3, lines 40-66). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clifford in view of Dean to allow comparing the first digital audio samples against the

second digital audio samples to determine if they match as taught by Saylor. The motivation for the modification is to have doing so in order to represent the proper output accurately.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford et al. (U.S. Patent No. 4,746,912) and in view of Dean (U.S. Patent No. 6,201,802) and further in view of Andreason (U. S. Pub. No. 2003/0008612).

Regarding claim 3, Clifford in view of Dean fails to teach "said radio link is Bluetooth<sup>TM</sup>". Andreason teaches that the radio link is Bluetooth<sup>TM</sup> (page 2, paragraph 0036). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clifford in view of Dean to allow the radio link being Bluetooth<sup>TM</sup> as taught by Andreason. The motivation for the modification is to have doing so in order to communicate between two wireless terminals using short range radio link.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford et al. (U.S. Patent No. 4,746,912) and in view of Dean (U.S. Patent No. 6,201,802) and further in view of Aaro et al. (U. S. Patent No. 6,662,020).

Regarding claim 5, Clifford in view of Dean fails to teach "terminating the performance of a financial transaction". Aaro teaches terminating the performance of a financial transaction (col.2, lines 32-36). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Clifford in view of Dean to allow terminating the performance of a financial transaction as taught by Aaro. The motivation for the modification is to have doing so in order to provide ensure the security of the data contained in memory.

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11. Claims 7, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford et al. (U.S. Patent No. 4,746,912) and in view of Saylor (U.S. Patent No. 4,313,183).

Regarding claims 7, 10 and 13 are rejected for the same reasons as discussed above with respect to claim 2.

12. Claims 8, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clifford et al. (U.S. Patent No. 4,746,912) and in view of Andreason (U. S. Pub. No. 2003/0008612).

Regarding claims 8, 11 and 14 are rejected for the same reasons as discussed above with respect to claim 3.

### *Conclusion*

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Md S Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*M.E.*

MD SHAFIUL ALAM ELAHEE  
July 22, 2004

FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read 'Fan Tsang', written in a cursive style.